

***Response to Arguments***

1. Applicant's arguments filed on 5/28/08 have been fully considered but they are not persuasive. The applicant argues that Kenney reference does not show or discloses all of the limitation of independent claims 1, 21, and 29 because applicant's specification indicates that "out-of-channel signals may be handoff candidate frequencies and GPS signals. The examiner believes that the applicant's arguments are no preservative because the claim limitation does not reflect such definition (see MPEP 2111 in which it is impermissible to importation of specification into claim limitation). Based on the broadest interpretation of claim language, the out-of-channel signals could be interpreted as IMD as taught be Kenney's reference.
2. Applicant's arguments see applicant's remarks, filed on 5/28/08, with respect to claims 2, 5, 22-28, and 30-32 have been fully considered and are persuasive. The rejection of claims 2, 5, 22-28, and 30-32 has been withdrawn.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 26 recites the limitation "amplified" in lines 4. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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6. Claims 1, 3, 4, 21, 29, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Kenney et al (US006009129A, hereinafter Kenny).

Per claim 1, Kenney discloses a communication receiver (see figure 3), comprising: a low pass filter that filters a base band signal to produce on channel received samples by removing out-of-channel (IMD) from the baseband signal (see figure 3 and items 312 and 313, column 6 and lines 52-65); a processor that processes said based band signal to produce out-of-channel received samples (see figure 3 and item 330, column 11 and lines 44-64).

Same arguments apply, *mutatis mutandis*, to claims 21, and 29.

Per claim 3, Kenney further teaches that a frequency source (see figure 3 and item 314) that generate a first signal at essentially the same frequency as an on-channel frequency; and a multiplier (see figure 3 and item 307) that mixes an amplified received signal and the first signal to produce to base band signal.

Per claim 4, Kenney further teaches that a low noise amplifier (see figure 3 and item 305) received signal comprising an on-channel and out-of-channel signals.

Per claim 30, Kenny further teaches parallel process (see figure 3) wherein the filtering and processing takes place at almost the same time.

7. Claim 23, 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Horner et al (US005357544A, hereinafter Horner).

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Per claim 23, Horner discloses a method, comprising: receiving a first signal comprising an on-channel signal and out-of-channel signals (see figure 1, L and R channel as the on-channel, pilot signal as the out-of-channel), a frequency source that generates a first signal at essentially the same frequency as an on- channel frequency (see figure 2 and item 24); a multiplier that mixes the amplified, received signal and the first signal to produce a base band signal (see figure 2 and item 26); a low pass filter (see figure 2 and item 40) that filters said base band signal to produce on-channel (right channel and left channel) received samples by removing out-of-channel signals (pilot signal) from the baseband signal; and a processor (see figure 2 and item 20) that processes said base band signal to produce out-of-channel received samples that can be used to search for pilots of candidate frequencies (see column 5 and lines 58-62, column 6 and lines 3-8).

Per claim 24, Horner discloses a communication receiver, comprising: means for filtering a base band signal to produce on-channel (left and right channels) received samples by removing out-of-channel signals from the base band signal (see figure 2 and item 36, 38 and 40); and means for processing said base band signal to produce out-of-channel (pilot signal) received samples that can be used to search for pilots of candidate frequencies.(see column 5 and lines 16-column 6 and lines 7).

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 22, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horner.

Per claim 22, Horner discloses a communication receiver, comprising a frequency source that generates a first signal at essentially the same frequency as an on-channel frequency (see figure 2 and item 24); a multiplier that mixes the amplified, received signal and the first signal to produce a base band signal (see figure 2 and item 26); a low pass filter (see figure 2 and item 40) that filters said base band signal to produce on-channel (right channel and left channel) received samples by removing out-of-channel signals (pilot signal) from the baseband signal; and a processor (see figure 2 and item 20) that processes said base band signal to produce out-of-channel received samples that can be used to search for pilots of candidate frequencies (see column 5 and lines 58-62, column 6 and lines 3-8). Horner does not expressly teach a low noise amplifier. However, Horner teaches a tuner. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the tuner further comprising a low noise amplifier in order to boost up the received signal such that it would be easy for the demodulation in the baseband.

Same arguments apply, *mutatis mutandis*, to claims 26, 27.

#### ***Allowable Subject Matter***

10. Claims 2, 5, 25, 28, 31 and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to YUWEN PAN whose telephone number is (571)272-7855. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anderson D. Matthew can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yuwen Pan/  
Primary Examiner, Art Unit 2618